REMARKS

Claims 6, 9-11, 13 and 22-74 are pending in the above-captioned patent application following this amendment. Claims 6, 9-11, 13, 22-27, 30-34, 37-39, 46, 47, 50, 51, 53-55, 57-64, 67-70, 72 and 74 have been rejected. Claims 28-29, 35-36, 40-45, 48-49, 52, 56, 65-66, 71 and 73 have been objected to, but were found to contain allowable subject matter. The applicants respectfully traverse the rejection of claims 6, 9-11, 13, 22-27, 30-34, 37-39, 46, 47, 50, 51, 53-55, 57-64, 67-70, 72 and 74, and the objection of claims 28-29, 35-36, 40-45, 48-49, 52, 56, 65-66, 71 and 73.

No new matter is believed to have been added by this amendment. Consideration of the pending application is respectfully requested.

Interview Summary

On September 9, 2003, the undersigned attorney for the Applicants conducted a telephonic interview with the Examiner, Mark S. Blouin. Prior to the interview, a draft Amendment and Response to Final Rejection was forwarded to the Examiner by electronic mail. During the interview, independent claims 6, 22, 37, 50, 59, and 67 were specifically discussed in view of the cited reference, Imamura et al. The undersigned attorney explained reasons the Applicants believe these claims are allowable. The Examiner indicated that he would take these reasons into consideration in performing a further review of these independent claims. The Examiner agreed to contact the undersigned after the further review was completed within approximately one week.

On September 17, 2003, the undersigned attorney for the Applicants contacted the Examiner to discuss the Examiner's further review of the case. During this interview, the Examiner stated that the draft Amendment and Response would place the application in condition for allowance in view of the cited reference. On this basis, the Examiner indicated that the proposed Amendment and Response should be filed. The Applicant wishes to thank the Examiner for his time and assistance during the interviews.

Rejections Under 35 U.S.C. § 102

Claims 6, 9-11, 13, 22-27, 30-34, 37-39, 46, 47, 50, 51, 53-55, 57-64, 67-70, 72 and 74 were rejected under 35 U.S.C. § 102(b) as being anticipated by Imamura (EPN

549 814 A1). The applicants respectfully traverse the rejection of claims 6, 9-11, 13, 22-27, 30-34, 37-39, 46, 47, 50, 51, 53-55, 57-64, 67-70, 72 and 74.

The Patent Office asserts that "Imamura et al. shows ... a base plate ... [that] further comprises ... a pair of spaced apart positioner cavities (Fig. 4B, (12a)) that receive the fine positioner (14), a pair of flex sections (Fig. 8, (10, 11)) that allow the base plate to flex, wherein the positioner cavities are positioned between the flex sections ...". The applicants respectfully submit that this reading of Imamura et al. is incorrect.

Contrary to the assertion of the Patent Office, the fixed region 10 and the movable region 11 do not flex. As provided in Imamura et al., "when power is applied to the respective piezoelectric element 14 fixed on the expansion regions 12, the upper located expansion region 12 expands while the lower located expansion region 12 contracts. According to the expansion and contraction of the expansion regions 12, the movable region 11 rotates relative to the fixed region 10 ... about the center hinge portion 13 connecting the movable region 11 to the fixed region 10". (Col. 12, lines 20-29). In other words, the movable region 11 and the fixed region 10 do not themselves flex, and do not allow the coupling plate 1 to flex.

To the contrary, the expansion and contraction of the expansion regions 12 causes the center hinge portion 13 to flex. The relative movement between the movable region 11 and the fixed region 10 is actually a by-product of expansion and contraction of the expansion regions 12, and movement of the center hinge portion 13. Consequently, although the expansion regions 12 and the center hinge portion 13 may flex, the movable region 11 and the fixed region 10 do not. Thus, the Patent Office has inaccurately and improperly equated the "movable region 11 and the fixed region 10" of Imamura et al. with the "flex sections 86" of the present application.

In contrast to Imamura et al., claim 6 requires a "head stack assembly ... comprising: an actuator arm; a coarse positioner that moves the actuator arm relative to the storage disk; a transducer assembly including a load beam, a flexure secured to the load beam, and a data transducer secured to the flexure; a base plate securing the transducer assembly to the actuator arm, the base plate including a pair of flex sections that allow the base plate to flex and a pair of spaced apart positioner cavities that are positioned between the flex sections; and a fine positioner secured to the base plate,

the fine positioner being positioned in the positioner cavities, the fine positioner moving a portion of the base plate relative to the actuator arm." As provided above, these features are not taught or suggested by Imamura et al. Therefore, claim 6 is believed to be patentable. Because claims 9-11 and 13 depend directly or indirectly from claim 6, they are likewise believed to be patentable. As a result, the applicants respectfully request that the rejection of claims 6, 9-11 and 13 be withdrawn, and that these claims be allowed.

In addition, Imamura et al. teaches that the piezoelectric element(s) 14 are in direct contact with the expansion region(s) 12 of the coupling plate 1. (See Figures 4B, 6 and 7A-7C, as examples). In contrast to Imamura et al., claim 22 of the present application is directed to a disk drive that requires "an actuator arm; a transducer assembly including a load beam and a data transducer coupled to the load beam; a base plate that secures the transducer assembly to the actuator arm, the base plate including a flex section that allows the base plate to flex; and a fine positioner that is secured to the base plate so that the fine positioner does not contact the flex section, the fine positioner selectively flexing at least a portion of the base plate." These features are not taught or suggested by Imamura et al. Therefore, claim 22 is believed to be patentable. Because claims 23-36 depend directly or indirectly from claim 22, they are likewise believed to be patentable. As a result, the applicants respectfully request that the rejection of claims 22-27 and 30-34, and the objection of claims 28-29 and 35-36 be withdrawn, and that these claims be allowed.

Moreover, Imamura does not teach or suggest that the piezoelectric elements 14 are secured to the coupling plate 1 under compression. Nowhere in the description or in the drawings does Imamura even suggest that the piezoelectric elements 14 are under compression. In contrast to the teachings of Imamura et al., claim 37 requires "an actuator arm; a transducer assembly including a load beam and a data transducer coupled to the load beam; a base plate that secures the transducer assembly to the actuator arm; and a first piezoelectric motor having a proximal end and a distal end, that ends being secured to the base plate so that the first piezoelectric motor is under compression, the first piezoelectric motor moving a portion of the base plate relative to the actuator arm." These features are not taught or suggested by Imamura et al.

Therefore, claim 37 is believed to be patentable. Because claims 38-49 depend directly or indirectly from claim 37, they are likewise believed to be patentable. As a result, the applicants respectfully request that the rejection of claims 37-39 and 46-47, and the objection of claims 40-45 and 48-49 be withdrawn, and that these claims be allowed.

In addition, Imamura et al. illustrates that the coupling plate 1 includes a projection 16 for fixing the coupling plate 1 to the access arm 2. (Figure 4B). Imamura et al. teaches two embodiments having two piezoelectric elements 14 that are substantially parallel to each other. (See Figures 10 and 14). However, in each of these embodiments, the piezoelectric elements 14 are not secured to the coupling plate 1 substantially between the projection 16 and the head 4. (Figures 10 and 14).

In contrast to Imamura et al., claim 50 is directed toward a disk drive that requires "an actuator arm; a transducer assembly including a load beam and a data transducer coupled to the load beam; a base plate that secures the transducer assembly to the actuator arm, the base plate including a plate mount that secures the base plate to the actuator arm; and a pair of piezoelectric motors that are each secured to the base plate substantially between the plate mount and the data transducer, the piezoelectric motors being substantially parallel to each other, the piezoelectric motors moving a portion of the base plate relative to the actuator arm." These features are not taught or suggested by Imamura et al. Therefore, claim 50 is believed to be patentable. Because claims 51-58 depend directly or indirectly from claim 50, they are likewise believed to be patentable. As a result, the applicants respectfully request that the rejection of claims 50-51, 53-55 and 57-58, and the objection of claims 52 and 56 be withdrawn, and that these claims be allowed.

Imamura et al. teaches that the coupling plate 1 includes a pair of recessed portions 12a. However, Imamura et al. does not teach or suggest that either of the recessed portions 12a extends through the coupling plate 1. Additionally, Imamura et al. does not teach or suggest that the piezoelectric element 14 is positioned over at least a portion of the recessed portion 12a that extend through the coupling plate 1.

Again, in contrast to Imamura et al., claim 59 requires "an actuator arm; a transducer assembly including a load beam and a data transducer coupled to the load beam; a base plate that secures the transducer assembly to the actuator arm, the base

plate including a positioner cavity that extends through the base plate; and a fine positioner that is secured to the base plate so that the fine positioner is positioned over at least a portion of the positioner cavity, the fine positioner selectively flexing at least a portion of the base plate." These features are not taught or suggested by Imamura et al. Therefore, claim 59 is considered to be patentable. Because claims 60-66 depend directly or indirectly from claim 59, they are likewise believed to be patentable. As a result, the applicants respectfully request that the rejection of claims 59-64 and the objection of claims 65-66 be withdrawn, and that these claims be allowed.

As provided above, Imamura et al. does not teach or suggest a coupling plate 1 having an expansion region 12 that flexes, with a piezoelectric element 14 or other fine positioner secured to the coupling plate 1 so that it is not in contact with the expansion region 12. However, claim 67 of the present invention is directed toward a method that requires "securing a transducer assembly to an actuator arm with a base plate having a flex section that flexes; securing a fine positioner to the base plate so that the fine positioner is not in contact with the flex section; and flexing the flex section with the fine positioner to cause at least a portion of the base plate to move relative to the actuator arm." These steps are not taught or suggested by Imamura et al. Therefore, claim 67 is considered to be patentable. Because claims 68-74 depend directly or indirectly from claim 67, they are likewise believed to be patentable. As a result, the applicants respectfully request that the rejection of claims 67-70, 72 and 74, and the objection of claims 71 and 73 be withdrawn, and that these claims be allowed.

Remaining References

The references cited by the Examiner, but not relied on for the rejection of claims, have been noted. The remaining references are no more pertinent than the applied references, therefore, a detailed discussion of these remaining references is deemed unnecessary for a full and complete response to the Office Action.

CONCLUSION

In conclusion, Applicant respectfully asserts that claims 6, 9-11, 13 and 22-74 are patentable for the reasons set forth above, and that the application is now in a condition for allowance. Accordingly, an early notice of allowance is respectfully requested. The Examiner is requested to call the undersigned at 858-456-1951 for any reason that would advance the instant application to issue.

Dated this the 18th day of September, 2003.

Respectfully submitted,

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